

Section 1721

Furnish material, equipment and hardware under this section that is pre-approved on the ITS and Signals QPL for wood poles available on the Department's website.

1720-3 CONSTRUCTION METHODS

Mark final pole locations and receive approval before installing poles. Unless otherwise specified, locate poles a minimum of 6 ft behind face of curb or 10 ft from edge of travelway. Ensure poles are of sufficient length to maintain the minimum required clearances above the roadway, obstructions and affected railroad tracks.

Drill or auger a hole for placement of pole and to allow for compacting. Set pole at manufacturer's recommended depth, but at a minimum depth of 5 ft. Ensure the pole is within 2 degrees of vertical when fully loaded.

Backfill hole with pole installed and tamp backfill in 6 inch lifts with a mechanical tamp until compacted density is at least 95% of original density.

On new Department-owned poles, install a grounding system consisting of #6 AWG solid bare copper wire that is exothermically welded to a single ground rod installed at base of pole or to the electrical service grounding electrode system located within 10 ft of the pole. Install ground wire so as to minimize damage from vandalism and environmental exposures. Install ground wire up pole to a point adjacent to the uppermost span. Use hot-dipped galvanized wire staples to secure ground wire to pole.

1720-4 MEASUREMENT AND PAYMENT

Wood Pole will be measured and paid as the actual number of wood poles furnished, installed and accepted.

No measurement will be made for installing grounding systems as these will be incidental to furnishing and installing wood poles.

Payment will be made under:

Pay Item	Pay Unit
Wood Pole	Each

SECTION 1721 GUY ASSEMBLIES

1721-1 DESCRIPTION

Furnish and install guy assemblies with all necessary hardware.

1721-2 MATERIAL

Refer to Division 10.

Item	Section
Guy Assembly	1098-7
Pole Line Hardware	1098-6

Furnish material, equipment and hardware under this section that is pre-approved on the ITS and Signals QPL.

1721-3 CONSTRUCTION METHODS

(A) Guy Assemblies for Signal Heads or Lead-in Cable

Install guy assemblies with guy cable, guy guards, anchors, 3-bolt clamps and associated fittings. Use 2-bolt attachment method where there is adequate room on the pole to comply with the NESC. Attach guy assembly and guy cable to 2 separate bolts with one bolt for span and one bolt for guy cable.

Where adequate spacing is not available and a violation of the NESC would occur with the 2-bolt attachment method, use approved one-bolt attachment method for attaching messenger cable and guy assembly.

Bond guy assembly to new pole grounding system as described in Article 1720-3.

Do not attach to existing guy assemblies unless specifically approved by owner.

(B) Guy Assemblies for Communications Cable

When installing messenger cable for supporting only communications cable, use approved one-bolt attachment method for attaching messenger cable and guy assembly.

Bond guy assembly to existing pole ground using parallel groove clamp or equivalent. If existing poles do not have a grounding system, install new grounding system for bonding guy assembly that complies with Article 1720-3.

Do not attach to existing guy assemblies unless specifically approved by owner.

1721-4 MEASUREMENT AND PAYMENT

Guy Assembly will be measured and paid as the actual number of guy assemblies furnished, installed and accepted.

No measurement will be made of guy cable, guy guards, anchors, clamps, grounding systems or fittings as these will be incidental to furnishing and installing guy assemblies.

Payment will be made under:

Pay Item	Pay Unit
Guy Assembly	Each

SECTION 1722 RISER ASSEMBLIES

1722-1 DESCRIPTION

Furnish and install riser assemblies with clamp-on, aluminum weatherheads or heat shrink tubing, galvanized pole attachment fittings and all necessary hardware.

1722-2 MATERIAL

Refer to Division 10.

Item	Section
Grounding Electrodes	1091-6
Pole Line Hardware	1098-6
Rigid Metallic Conduit	1091-3
Riser Sealing Devices	1098-4
Wire	1091-2

Furnish material, equipment and hardware under this section that is pre-approved on the ITS and Signals QPL.

1722-3 CONSTRUCTION METHODS

Install risers with required weatherheads or heat shrink tubing on poles using pole attachment fittings. Maintain a 10" minimum and 18" maximum offset from signal messenger to the top of riser for all risers. On utility-owned poles, maintain a 40" offset from electrical utility's power conductors to top of riser and riser attachment fittings.

Use approved heat shrink tubing retrofit kits when installing new fiber-optic or coaxial cable into existing risers that contain existing fiber-optic or coaxial cables.

Install heat shrink tubing retrofit kits in existing risers as specified.